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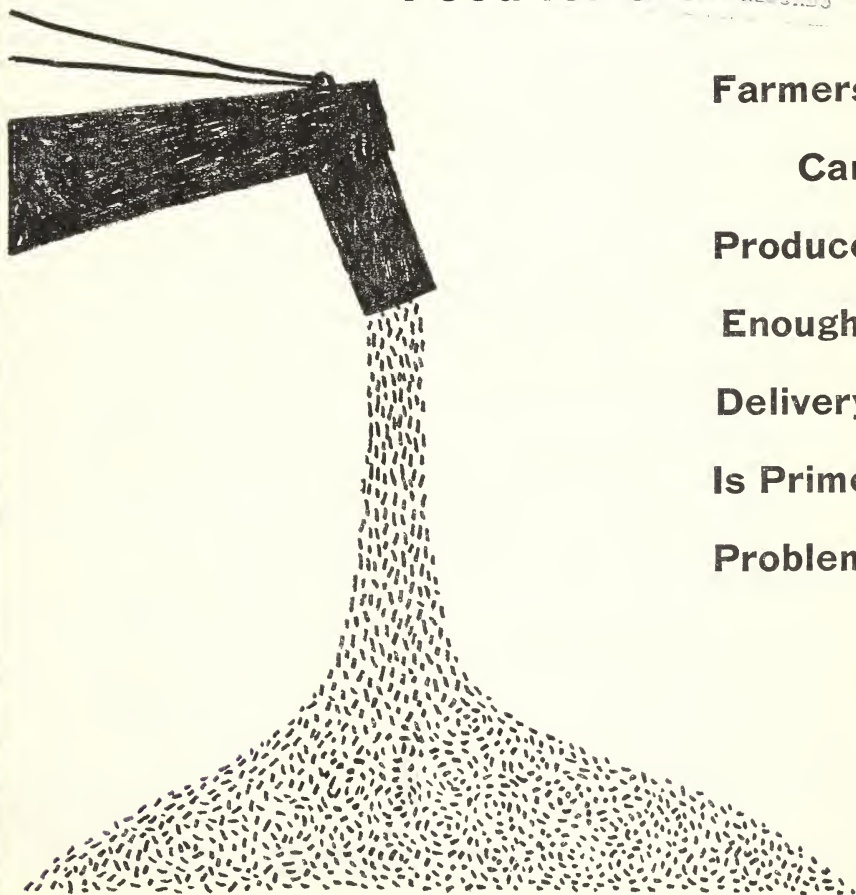
# Agricultural Situation

U.S. DEPT. OF AGRICULTURE  
NATIONAL AGRICULTURAL STATISTICS SERVICE

OCT 30 1967

## Food for the World:

**Farmers  
Can  
Produce  
Enough;  
Delivery  
Is Prime  
Problem**



# THE WORLD FOOD SITUATION ..

When the world's population sits down at the global dinner table in 1980, what's likely to be there?

According to a recent study using projections on world grain production, consumption and trade, here's the basis for at least an outline of the answer:

—The developed nations will sit down to an adequate dinner (though as always some citizens will not get a square meal). These nations also will have plenty of grain to export.

—The developing nations as a group will probably still be short of food in 1980. But assuming they continue to gain in their own production, world output of grains can avert starvation and provide for some further improvement in diets generally.

—The world will have the capacity to produce more than enough food to meet effective demand—both commercial demand and aid program requirements. The developed world will be able to produce more than enough grain to meet these demands even if production in the developing nations doesn't grow any faster than in the past decade.

We'll still have surpluses in one part of the world, shortages in another. The big problem will be distribution—disparity of food production and food availability between the poor and rich nations.

## FOOD AID NEEDED

Until agricultural production and economic growth speed up in the less developed countries, food aid will be needed. Only if they increase their levels of agricultural productivity to 4 percent annually—a rate achieved by only a few undeveloped countries—could they achieve a high enough rate of economic growth to reach a desirable minimum caloric level for their people and break their dependence on food aid.

This would require unprecedented increases in resource commitments to agricultural development. It would require massive efforts not only by the developing nations but also considerable assistance from developed countries.

In the study, grain is the common denominator used in figuring food sup-

plies and demand and in measuring the possibility of winning the war on hunger. The study looks at the developed and less developed world separately with respect to grain importing and grain exporting nations. It then combines the two to determine worldwide grain prospects.

The world grain supply is projected to 1980 based on three sets of assumptions about the increase in economic development and related increase in grain production by less developed countries (LDC's). The study does not predict grain output but rather explores the consequences of different rates of improvement which cover the range of likely outcomes.

One assumption is based on recent *historical* grain production and consumption trends in the LDC's. The second assumption is for a *moderate* improvement, and the third for *rapid* improvement, over historical trends.

All assumptions use the same rate of population increase. But different rates of increase in per capita consumption are used, depending on the levels of economic development.

For the developed world, only one set of projections is made. This is based on the most likely rates of growth in grain production assuming world market prices remain at about the average levels of the past 3 years. For the United States, harvested grain acreage is assumed to be 186 million acres in 1980 (compared with about 165 million acres in 1967 and 184 million in 1959-60).

These assumptions let us project the surpluses or deficits that may result and examine what adjustments may be needed in production, consumption, and trade.

Whether or not there is an *actual* surplus of grains depends on many things: On how production capacity is used, for example, which in turn depends on production and trade prospects and government policies.

Here's how the prospects shape up under each assumption:

**IF:** Grain production between now and 1970 in all the less developed grain-importing countries does not increase any faster than it did between 1954 and 1966 (2.5 percent annually);



# ... A Careful Look Ahead to 1980

**OR:** India and Pakistan (recipients of nearly one-third of total LDC grain imports) step up their grain output as expected in the next 2 years, but there is no acceleration in output rate of the other LDC countries.

Under the first circumstance, world grain production capacity exceeds demand by 30 million metric tons. This would be the amount left over after supplying the needs of the less developed grain-importing countries for 58 million metric tons of grain in 1980.

Under the alternative setup, the needs would be slightly less, 54 million tons.

In either case, the grain import needs in 1980 would be nearly double those for 1970 and more than double those in 1964/65. And the increase in per capita grain consumption would be small. India and Pakistan would take 20 to 24 million tons.

**IF:** Production growth by less developed grain-importing countries is moderate—2.9 percent—as a result of more emphasis on agricultural development but no “crash” program to boost production.

World grain producers by 1980 would have the capacity to produce 39 million more tons than could be effectively used.

The less developed importing countries would still require sizable imports—52 million tons.

And, while there would be a per capita grain consumption increase of about 0.7 percent a year—better than the 0.4 percent figured for the preceding assumption—there would still be a calorie gap.

**IF:** Grain output rises rapidly to a 4 percent rate by 1975 in the developing grain importing countries.

World capacity to produce grain could exceed effective demand by 63 million tons in 1980.

The LDC grain importers would need to import 28 million tons of grain, only 5.8 million more than the LDC grain exporters would be shipping out.

Average per capita grain consumption would be close to adequate for most of the formerly underfed nations.

Commercial grain sales would largely supplant sales under concessional government programs because of the rapid agricultural and economic growth.

There is little likelihood, however, that this rapid rate of improvement will materialize so soon in many developing countries.

For one thing, the changeover from sickles to harvesting machines and from digging sticks to mechanical cultivators is not quickly or easily made.

Most developing countries have a long way to go before they can apply—or pay for—the technologies needed to abruptly awaken their land and put it fully to work.

Most of them will continue to need capital and technical assistance for some time. But how much will come from developed nations is highly uncertain.

There are also many social, political and economic obstacles to be overcome before the developing countries can greatly accelerate their growth rates and break their dependence on grain imports.

The capacity of U.S. farmers to expand grain output will increase, but so will that of farmers in other grain exporting countries. Thus the United States is concerned about alternative paths that might be taken in balancing future world grain supplies against effective world demand.

The choices are likely to depend on how well the United States encourages self-help efforts by developing countries; and to what degree we will be able to share responsibility with other countries for food aid, management of marketing machinery, and technical assistance.

Unless all developed nations share in helping less developed countries grow and in supplying their food demands, the U.S. may expect a total level of grain production in 1980 from only about 165 million acres, about the same as in 1967.

The world food problem can be solved. The study indicates that a high level of international cooperation toward that goal will contribute to more effective growth by developing countries. It will also lead to a more equitable sharing of both the responsibilities and the gains to be expected from accelerated economic development.

*Economic Research Service*

# Science Helps You (And Your Competition)

Modern science has helped the farmer: New sprays to kill pests; new fertilizers to make more crops grow on less land; new machines to work crops faster with less waste.

Scientific progress has also helped the farmer's competitors in many cases. However, since 75 percent of farm marketings are made up of food, which seems little affected by nonagricultural substitutes, most food producers shouldn't be too concerned.

For the remaining 25 percent of the farm market that's not food, there's some keen competition from products made from synthetics:

## FIBERS

Many people like synthetic fabrics. So many people, in fact, that the market share for such synthetics as nylon, acrylic, and polyester increased from 3 to 33 percent from 1949 to 1965. The market share of farm-grown fibers fell from about 97 to 67 percent in the same time.

The synthetic growth rate is about 20 percent a year, compared to the 0.4 percent growth rate of such fibers as cotton and wool.

## SOAP

Traditionally a large consumer of animal fats and vegetable oils, the soap industry has been turning to dodecylbenzene and other chemicals lately. Agriculture's share of the soap ingredient market has declined on an average of about 6 percent a year since 1945, while chemicals have gained about 17 percent.

Fats and oils in 1945 supplied about 96 percent of the raw materials for soaps and detergents; in 1965 the figure was about 20 percent.

## SWEETS

The housewife now has a choice of a spoonful of sugar or a drop or two of

low-calorie sweetener from a bottle.

Synthetic sweeteners made from saccharin and cyclamates have had a growth rate of about 9 percent since 1958, compared to sugar's 2 percent. In 1965 sugar had a 94-percent share of the sweetener market, while the synthetics had only a 6-percent share.

## FEED

Urea can be substituted for high-protein agricultural materials used in animal feeds. The market share of this organic chemical rose from about 9 percent in 1955 to about 12 percent in 1964; oilseed meal shares fell from about 91 to 88 percent. Urea's growth rate has been about 10 percent a year.

Its price is lower than oilseed meal on an equivalent protein basis. However, there is a limit to the amount of urea that can be used, and it is used only in ruminant feeds.

By and large, scientific innovations have placed agricultural products in a better position to compete: Dialdehyde starch has improved the wet strength of paper, epoxidized soybean oil is used as a plasticizer, emulsifiable linseed oil is used in water emulsion paints.

Also, science has spawned new forms of old products: Stretch cotton fabrics, freeze-dried fruits, low-fat milk, boil-in-the-bag vegetables, aerosol-packed cheese, concentrated and powdered fruit beverages, and sweet-potato flakes.

In the future food products will face limited competition from synthetics. Many farm products will enter the market as engineered, simulated, fortified or fabricated foods. Some, like diet foods, enriched cereals, meatless meats and convenience foods, will appeal only to specific groups of people.

For nonfood farm products, a further decrease in agriculture's share of the market can be expected.

Raymond Corkern  
Economic Research Service



# Record Flock: Plenty of Turkeys This Year For Holidays

There are a couple of good reasons to talk turkey this month. It's the peak one in the turkey-marketing bulge which traditionally lasts from August through December. And it should be the biggest October on record for these birds. Turkey growers have been raising a bonus-size crop, expected to number 125.6 million birds in 1967.

The record flock is the result of gains in numbers raised in most turkey areas. Output has changed most in the South Central States, where turkey numbers have gained 22 percent this year, and in the West, where they are up 13 percent. Production is also up in the West North Central and South Atlantic States.

By State, California is cresting the turkey tide, raising an estimated 19.1 million birds this year; followed by Minnesota's 16.9 million, 11.7 million in Missouri, and 8.7 million in Arkansas.

Regions producing fewer turkeys are the North Atlantic States, where production has declined 10 percent, and the East North Central States, where turkey numbers are down 5 percent.

## MORE HEAVY BREEDS

Included in this year's larger flock is a bigger number of heavy-breed turkeys.

Heavy breed turkeys finish up at 20-30 pounds live weight; light breeds weigh in at 10-12 pounds apiece. The bigger birds have been finding better acceptance from institutional buyers and processors of the deboned, frozen turkey rolls and roasts. Compared with an 8-percent increase this year for all turkeys raised, the heavy breeds are up 9 percent.

Numbers of this type are running 22 percent higher in the South Central area, and are up 17 percent in the South Atlantic States and 12 percent in the West. However, fewer heavy-breed turkeys are being raised in the North Atlantic and East North Central States.

Light breed turkeys are expected to

number 15.4 million in 1967, 1 percent below 1966. Declines in the North and South Atlantic States have offset increased production of the light breeds in other areas.

## Enough Cranberries To go around, too

Bright red cranberries will be in good supply for Thanksgiving sauces this year. Production is estimated at 1.5 million barrels, 83,000 fewer than last year, but 15 percent above the 1961-65 average.

For most folks this will mean a big bowl of the relish on November 23 and a helping of cranberry sauce or cocktail at other times. And for the producer, it may mean returns approaching last year's level.

The 1966 crop of 1.6 million barrels grossed \$24.5 million. Prices in both 1966 and the preceding year averaged about \$15.50 a barrel.

Cranberries are produced in three areas of the U.S., with usual harvest beginning as early as mid-September and running as late as November 1. The bogs are fickle, and yields vary widely year to year. In most areas this year, however, yields should be high.

Over half of the crop will come from the early-harvested Eastern bogs in Massachusetts and New Jersey.

In the Bay State, the crop is down by an estimated 7 percent. Cool weather early in the season and excessive moisture are expected to keep the crop to 0.7 million barrels. In New Jersey the crop is expected to be 16 percent above 1966, filling 157,000 barrels with berries.

Farther west, the Wisconsin crop, approaching Massachusetts' in volume, is forecast at one-half million barrels. Though 2 percent below last year, the September to late October harvest should exceed the 1961-65 average by nearly one-fifth.

The cranberry picking ends latest in the Pacific Northwest. While Washington's crop is forecast at 101,000 barrels, one-fourth below 1966, Oregon cranberry output is estimated at 57,000 barrels, well above last year.

Of last season's crop, about one-third of a million barrels were utilized for fresh berries, while 1.3 million barrels went into processed cranberry products.



## **RECORD PEANUT CROP SEEN THIS FALL DESPITE ACREAGE CUT**

"Peanuts" is hardly the term to use in sizing up either the peanut crop for this year or the volume of these nuts processed during the year ended July 31.

Acreage for harvest this fall is down 2 percent, the result of smaller plantings and more farmer participation in Government acreage programs. But in early September, the harvest was estimated at about 2.56 billion pounds, farmers' stock basis, topping last year's record harvest by 6 percent.

As the digging of this year's crop got underway in August, the peanut millers were winding up shelling the 1966 crop. As a matter of record, they milled a total of nearly 2.19 billion pounds of farmers' stock peanuts during the 1966-67 season.

Spanish peanuts milled during the 1966-67 season reached 901 million pounds, followed by Virginias at 728 million pounds, and Runners at 559 million pounds. Millings of Spanish peanuts were up from last season by 33 million pounds, but Virginias and Runners were below last season by 11 million pounds and 74 million, respectively.

The versatile peanut appears to consumers in these forms: roasted in the shell, salted peanuts, peanut candy, peanut butter, boiled peanuts, and cooking oil. Processing for oil further splits the peanut's personality, yielding peanut cake and meal as byproducts.

The American craving for peanuts in all forms is well proven by the mountain of nuts, weighing almost 1.18 billion pounds, turned out by millers as shelled edibles and nearly 94 million pounds cleaned in shell for "baseball peanuts."

Salted nuts, mostly of the Virginia variety, took a 222-million pound scoop out of the shelled-edible mountain last year. A like amount was used in making peanut candy (mainly from Spanish peanuts) and peanut butter sandwiches. In addition, nearly a half-million pounds were destined for the popular spread, peanut butter. Incidentally, peanut butter is one of the

foods distributed through the Government food distribution programs. Miscellaneous products and yearend stocks account for the remainder of the shelled edibles.

Crushing is another important type of processing: During the year ended July 31 there were 340 million pounds of peanuts crushed, yielding peanut oil, cake and meal.

*Statistical Reporting Service*

## **SRS NOW REPORTS ON A \$53 MILLION CROP CALLED MUSHROOMS**

The first issue of a new crop report was published recently. It deals with production of the highly specialized mushroom crop.

The mushroom report provides a picture of commercial mushroom cultivation in the U.S.

Technically a fungus, the mushroom must be grown indoors or underground in beds of compost. Mushrooms mature quickly. Small mushrooms can be seen 2 to 4 weeks after starting.

Although mushrooms are grown commercially in 24 States, one of them, Pennsylvania, claims over half the annual output. Other important States include New York, Ohio, and Delaware.

During the year ended June 30, mushrooms were grown on a cumulative 76 million square feet of bedding, including re-use of the same bed for several fillings. Growers intend to increase the bedding area by 7 percent in 1967-68.

The report showed production during the past year of 155 million pounds, with a value to producers of \$53 million.

Only about 1 pound of mushrooms in 4 is sold for fresh consumption. Most of the crop winds up being processed.

Growers receive a different average price from the sale of mushrooms for fresh or processed use. While the average price per pound paid for processing mushrooms was 31 cents during the past year, a pound of mushrooms for fresh use brought 12 cents more.

*Statistical Reporting Service*



# EVAPORATED MILK MARKETS DRYING UP?

The evaporated milk industry is one of many you'll find sized up periodically in a Statistical Reporting Service report.

Although evaporated milk use has declined in the past 20 years, it still ranks as an important manufactured dairy product and market for milk. In 1966, 3.5 billion pounds of whole milk were used in evaporated milk manufacture, making this product rank fifth in whole milk use.

The trend has been to a declining output of evaporated milk, however. In the first 7 months of this year, for example, production was 9 percent below 1966 and 20 percent less than the average for 1961-65.

In past years, the storability of evaporated milk assured a wide market. Canned milk doesn't need to be cooled until it is opened, thanks to the way it's made. After about half the liquid bulk of the whole milk has been evaporated off, the product is sealed in cans and sterilized with heat, assuring safe storage.

Evaporated milk is sometimes confused with sweetened condensed milk. Condensed milk is evaporated whole milk with about 40 percent sugar, by weight, added in. Sugar acts as a preservative, so condensed milk doesn't need to be sterilized by heat when it's canned.

As early as 1918, over a billion pounds of evaporated milk were produced annually in the United States. The market included areas abroad where virtually no refrigeration or safe fresh milk were available.

Demand increased, with annual output passing the 2-billion pound level in 1936. The war years of World War II and the lean years in Europe which followed enlarged the need for canned milk. As many as 170 plants in the United States canned over 3 billion pounds of evaporated milk yearly between 1941 and 1948.

In more recent years, output has declined, for several reasons. The main one has been refrigeration.

With the increase in city population, incomes, and the spread of rural electrification, most households have refrigerators for storing fresh milk. Then too, the fresh milk in farm storage

tanks, and all the way to grocery coolers, has been refrigerated.

Powdered milk also competes strongly with evaporated milk, and is now made both in nonfat and whole dry forms.

Since an equivalent amount of fluid milk is lighter to ship in powdered form, dry milk has partially replaced evaporated milk as an export. Smaller exports of evaporated milk were apparent this year. The 40 million pounds exported during the year ended June 30, although somewhat above the level of the past 2 years, was well below the average exports of 129 million pounds annually in 1961-65. In recent years, exports have fluctuated with the level of shipments to Mexico, the largest importer of American evaporated milk.

Milk drinkers in the Philippines are typical of those abroad who have switched away from evaporated milk. Once a major market for our canned milk, the Filipino now relies mostly on either powdered or filled milk. The latter is reconstituted nonfat dry milk, with vegetable fat and stabilizers added.

*Statistical Reporting Service*

## FOUR-FIFTHS OF SCHOOL LUNCH COMES FROM LOCAL SOURCE

During this school year the Nation's schools will use at least \$143 million worth of donated foods.

Besides giving a boost to school lunches for over 20 million youngsters, the foods will help feed almost 100,000 children getting school breakfasts in a 2-year pilot program made possible by the Child Nutrition Act of 1966.

Federal cash and food aid through the 21-year-old National School Lunch Program covers about 20 percent of program costs. State and local sources, including children's payments, make up the remainder. About 80 percent of the food used in the nationwide lunch program is bought from local suppliers. These local purchases by schools exceeded \$900 million last school year.

*Consumer and Marketing Service*

## HOW HIGH WILL WATERMELONS STACK?

Why do we do things a certain way? Maybe just because it's the widely-accepted method. For example, consider how watermelon shippers load their cargoes in refrigerator cars or piggyback trailers.

The tradition is to lay down a straw cushion, then a layer of melons. When the car is loaded with five layers of melons, it's considered full, even though there's still about 3 feet of loading space at the top.

Why don't they stack the melons higher? Well, tradition has it that more layers of the big Charleston Grey melons would crack or bruise some underneath.

USDA transportation researchers were curious about that notion. They knew that about one-third of the wholesale price of watermelons shipped north from the Southeast is wrapped up in transportation costs.

Aiming to cut down this cost, they tried loading stacks of six, seven, and even eight layers. Another innovation, replacing the straw with polystyrene foam strips, was tried at the same time.

The results of this test could mean some savings for the watermelon shippers and the consumer. In 1962, for example, more than \$170,000 in rail transport cost would have been saved if all melons shipped from southeastern producing areas to northern markets had been loaded in seven layers. This method would have saved another \$7,000 in packing material expenses.

Loading the melons higher in the test did result in increased rates of breakage and bruising, as well as higher rates of decay. But the fuller loads more than offset these losses. In the calculations for 1962, the use of seven-layer loads would have reduced transportation needs by 500 refrigerator cars. Also, the taller loads reduced the amount of end-to-end shifting of the melons in transit.

The use of polystyrene foam showed several advantages over straw. The strips allow air to circulate more freely around the watermelons, thus lowering air temperature slightly, helping to slow decay.

Foam packing is neater to handle, and can be tacked to walls and floors of

cars or trailers. It's also free of dust and chaff which irritate loaders handling straw.

To obtain the full benefit of six- or seven-layer loads, researchers advise (1) using only melons of good carrying quality and condition, (2) using adequate cushioning on sides and endwalls, and (3) prompt shipping and unloading of melons.

William Black  
Philip Breakiron

*Agricultural Research Service*

## Processors Irrigate To Avoid Pollution

Food processing companies in the Northeast are turning to fields and woods as a way to dispose of waste water without polluting local streams.

When the water is discharged via irrigation sprinklers on the land, the soil and plants act as purifying agents.

Various systems, planned with the help of USDA, agricultural colleges, and others, have been used by the companies to screen and filter the water.

For example, a firm in Delaware set aside 75 acres of land near its vegetable processing plant for use as a filtration medium to avoid pollution of a nearby creek.

The water used in the processing plant—600,000 to 750,000 gallons a day in season—is spread over the 75 acres through ordinary irrigation pipes which dispose of 650 to 750 gallons a minute.

The company uses 30 to 34 sprinkler heads at a time. Hourly, the water is automatically shifted to another set of laterals and their sprinklers.

Before entering the sprinkler system, the water is screened to remove what accumulates as the vegetables are cleaned—corn shucks and silk, pea pods, and other such waste material.

The water leaving the plant also contains chemicals used in processing the vegetables, including chlorinating fluids, detergents, and sodium salts. But they are such a small percentage of the total volume of water that they do no noticeable harm to the growing vegetation in the 75-acre filter field.

The filter field is planted in Kentucky 31 tall fescue, orchardgrass, and reed canarygrass.

*Soil Conservation Service*





**Based on Information Available October 1, 1967**

## **WHEAT SUPPLY MOUNTS**

The 1967-68 wheat marketing year started out with the smallest July 1 carryover since 1952. But the 1967 crop, estimated at 1,543 million bushels, more than offsets this reduced carryover, and should provide the first increase in U.S. wheat supplies since 1960.

Based on preliminary indications of domestic disappearance and an export target of 750 million bushels, the carry-over next June 30 likely will be somewhat larger than the 426 million bushels of this past June.

Total disappearance in 1967-68 is likely to be above the 1.44 billion bushels of a year earlier. Domestic use may account for most of the increase, with wheat feeding expected to be above the 90 million bushels fed last year.

The farm price of wheat last season averaged \$1.63 per bushel, 38 cents above the loan rate and 28 cents higher than the average price for the 1965 crop. The 1967-68 price is expected to average somewhat lower than last year, but above the loan rate of \$1.25 per bushel.

## **FEED GRAIN USE**

With prospects for more favorable livestock-feed price ratios and heavier feeding rates, domestic use in 1967-68 will exceed this season's estimate of 141 million tons. And, exports in 1967-68 may be above the estimated 22 million tons shipped in 1966-67. However the 1967 crop, predicted at a record 175 million tons, will likely exceed total use, resulting in some increase in carryover at the end of 1967-68.



## **SMALLER COTTON CARRYOVER**

With the smaller crop this year, and an expected disappearance in 1967-68 almost equal to last year's, another sharp drop in the U.S. cotton carryover is in prospect. By next August, stocks of all kinds of cotton are expected to fall about 5.5 million bales to slightly below 7 million.

Combined mill consumption and exports of cotton this year are forecast at a little under the 1966-68 total of 14.1 million bales. U.S. cotton exports in 1967-68 are expected to about equal last year's total of 4.7 million bales. U.S. mill use in 1967-68 is expected to be a little over 9 million bales—slightly below last year's large consumption.

Use of short-staple cotton is expected to increase, while use of longer staples may decline with tighter supplies. Imports of cotton textiles and military procurement of textiles probably will show a moderate drop in the coming year.

## **HOG PRODUCTION LIKE LAST FALL**

Hog slaughter in the first half of 1967 was 15 percent above a year earlier. Slaughter last summer was up about 10 percent. But this fall, hog slaughter is expected to be about the same as last fall's.

In 10 Corn Belt States on September 1, the number of hogs on farms in weight groups that will make up the bulk of fall slaughter supplies was about the same as a year earlier. Hog slaughter early in 1968 will likely average about the same as, or a little smaller than, in early 1967, reflecting this fall's slightly smaller pig crop.

Barrows and gilts at eight markets averaged a little under \$20 per hundredweight in mid-September—about \$3 lower than a year earlier. Prices are expected to continue around current levels this fall.

## **RECORD CIGARETTE OUTPUT**

The production of cigarettes—the major outlet for U.S. tobacco—seems likely to approach a record 580 billion in calendar 1967. This would be 2 percent above 1966 and 4 percent above the preceding year.

Total cigarette consumption by U.S. smokers during 1967 is estimated at 551 billion—10 billion above 1966. More people of smoking age and high levels of consumer income are major factors pointing to a further modest increase in total cigarette consumption in 1968. Cigarette exports are also up.

Consumption of other manufactured tobacco during 1967 is estimated to be slightly lower than in 1966. The outlook for 1968 is for the decline in cigar and cigarillo output to level off and for production of snuff, smoking, and chewing tobacco to remain near this year's level.

# THE FRUIT STAND HAS LESS TO SELL

With a few exceptions, production of deciduous fruit has declined in 1967, bringing higher prices to producers and lighter supplies for consumers.

Supplies of canned fruit, which include the generally smaller stocks of most processed noncitrus fruits, will be tight this year. Production of dried fruits will be substantially smaller than last year, while the frozen fruit pack this year will be a little larger.

## APPLES

Consider the ups and downs for the apple crop this year. Commercial production is up 14 percent in the East, but down 7 percent in the Central region and 12 percent out West. The entire crop is forecast to be slightly below 1966 and 3 percent below the 1961-65 average.

Regional ups and downs will affect the availability of several types of apples. Slack output from fall and winter apple States will curtail the fresh and storage apple supply during these seasons, while processing apples aplenty in Appalachia are renewing the very low canners' stocks of applesauce and slices.

## PEARS

Pear production was a record three-quarter million tons last year. This year, however, the crop is forecast below a half million tons. As a result, the 1967 pear harvest will rank about 40 percent below 1966 and one-fourth under the 1961-65 average. In the Pacific States, where seven-eighths of the crop is produced, production is down by like percentages.

Pears are a prime ingredient in canned fruit cocktail. Thus, the lighter crop will keep the lid on the cocktail pack this season.

## PEACHES

Whether the peach crop this year has decreased by 12 percent or 21 percent

depends on how you look at clings. The first percentage includes the crop of California clingstones for canning, which was down 9 percent from 1966. The second is the estimated change in the production of all peaches except the clings.

In either case, higher prices will result from the smaller supplies. Fresh peach prices in late summer averaged sharply above 1966 levels; supplies of the canned clings will be moderately smaller in 1967.

## GRAPES

Take another look at California, this time to explain the diminished U.S. grape crop. This State provides 90 percent of the grapes; roughly two-thirds of these are raisin varieties. California's crop is down 13 percent and the national output is 12 percent smaller than in 1966.

Even so, as the crop with the largest production, an estimated 3.3 million tons this year, the diminutive grape easily dwarfs output of apples, peaches, and other deciduous fruits.

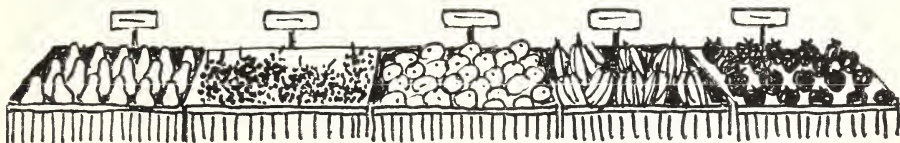
## CHERRIES

She can bake a cherry pie in 1967-68, but that can of pie cherries will probably cost more than one did in the past season.

Processed tart cherry items from the 53-percent below-average crop will likely drop below the small quantity packed last year.

The sweet cherry crop, 16 percent below 1966 and only 1 percent below average, resulted in smaller shipments of fresh cherries this summer. Brining, the main market for sweet cherries and first step in both the maraschino and candied cherry processes, will also be somewhat smaller, as will the canning of sweet cherries.

*Economic Research Service*



# FIRE

## Northwest Crisis Over

The Pacific Northwest has survived one of the most critical fire crises of recent years. Control of most areas came by September 11, after a month in which thousands of large and small fires occurred. Most of the more than 3,000 fires during the crisis were caused by lightning. Such fires can occur almost simultaneously; in one forest over 200 fires were going at once.

While only 46 fires burned more than 100 acres each, the Sundance Mountain fire, worst blaze in the region, consumed over 56,000 acres before it was controlled.

Despite the intensity of the crisis, rapid mobilization and training made it possible to keep acreage losses lower than in 1966. Altogether 110,000 acres were lost in the month-long flareup, but the total was considerably below the 315,000 acres burned in 1966.

The costs of battling the blazes accounted for most of the \$30 million spent on fire control in national forests so far this fiscal year. About \$27 million of this occurred in the period after August 11.

The blazes taxed the manpower resources of the Northwest. Firefighters were drawn from many areas, and ranged from professional smokejumpers to Job Corps trainees. At the peak of the fire activity, more than 15,000 firefighters were on the fireline. Over 1,000 fire control specialists from throughout the country were in the area to assist in the work.

In addition to local manpower employed to fight the Northwestern fires, the crews included:

- organized teams of Indians,
- agricultural workers from Idaho and California, and
- a military task force from Fort Lewis, Wash.,
- transportation, service, and supply units of the Montana National Guard,
- members of the Job Corps, who provided over 10,000 man-days of labor.

All crews received airborne support in the largest air action ever recorded in a like period of firefighting. The more than 700 aircraft included personnel carriers, air tankers, small helicopters, and reconnaissance planes. They came

from commercial, military, and Forest Service airstrips.

During the month, 2,500 jumps were made on small fires by the smokejumpers. About 3.8 million gallons of retardant were dropped, greater than a normal yearly output. On major fires, 360 bulldozers were being used at once.

*Forest Service*

# WATER

## Law Varies East to West

When it comes to this Nation's water law, America is divided.

Easterners often go by something called riparian doctrine. Westerners more often follow a concept of prior appropriation.

In essence, the riparian doctrine calls for equal sharing of river water by owners of land along the watercourse. One of two rules within the doctrine may determine how much water may be diverted.

The natural flow rule entitles each owner to an undiminished flow of water. No user may materially alter the natural flow or quality of the stream. The second rule is "reasonable use." It allows owners of bordering lands to use water in the light of surrounding circumstances, such as method and nature of use, quantity available and quantity desired, so long as use is legally "reasonable."

The water code of the West is something else again. Water rights often are based on prior appropriation; roughly, first come first served. For such rights, the land's location is immaterial.

The man who got there first may continue to exercise all his water rights, even though there may not be enough for the man who came second. If there is a water shortage, the seconds usually must cease their diversions. But some States may give preference to certain types of use.

Some easterners seeking more practical policies to underlie a system of water rights are becoming interested in prior appropriation. Prior appropriation makes it easier to tell who gets what water when and who gets cut off and at what point. However, the type and method of use perhaps should be more important than who started using the water first.



# SALUTE FARMER CO-OPS THIS MONTH

October has a new name—Co-op Month. And with literally thousands of organizations and products bearing the co-op tag, you'd probably require most of October's 31 days to list them.

The cooperative idea has been successfully tried in many areas of farming and rural life (and city life as well) where people pool their resources to get a job done better. Since they are the real owners, members have a say in the operation, as well as a share in the rewards.

One thing shared by all types of co-ops is an impressive set of statistics. Members themselves may not be fully aware of these cooperative dimensions:

*Cooperators.* In 1964-65, there were over 7 million memberships in farmer marketing and purchasing cooperatives alone. (Because individual farmers often belong to several co-ops, this figure unavoidably contains some duplications.)

*Co-op categories.* Marketing cooperatives had nearly 3.8 million memberships in 1964-65, 53 percent of the total. Memberships in this category were up from the preceding year, while the share of supply cooperatives, accounting for 46 percent of all memberships, and related-service cooperatives, 1 percent, were down slightly.

*Individual co-ops.* Over 40,000 individual cooperatives can celebrate their achievements this month. The figure includes marketing and purchasing co-ops, electric and telephone cooperatives serving 7 million customers, the Farm Credit System, which loaned over \$8 billion last year, credit unions, cooperative housing projects, and group health plans.

And there are still other types. Irrigation cooperatives and mutual insurance companies, for example, are typical of the other ways farmers join up to create services tailored to their own needs. Let's take a closer look at these two.

In Colonial days, your insurance was the neighbors who would pitch in to rebuild your cabin if it burned down. That kind of cooperation persists, of course. But today mutual insurance companies provide protection to farmsteads in dollars as well.

The companies are owned by farmers in more than 1,400 rural areas of 40 States, and provide more than half of the fire insurance carried on farm property. Payments in settlement of members' claims amount to over \$50 million a year.

Like the need for protection against fire damage, the need for water is universal. Where it's naturally scarce, farmers get together to obtain the water they need.

In the United States today, cooperative irrigation companies supply water for about 9 million acres, 25 percent of all irrigated land.

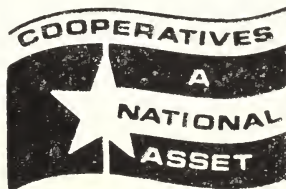
Over 150,000 farmers operate these companies to furnish water for themselves at cost. They have as much as \$300 million invested in storage reservoirs, dams, and other facilities for distribution.

Today, much of the cooperative story centers around the cash register. Supply co-ops get the right kind of supplies at the lowest possible prices, while it's the marketing co-op's job to get the most money and the widest possible distribution for members' products.

Those who buy farm products think highly of the co-op marketing approach, if growth of the co-op share of the market is any indication.

More sales of crops and livestock products are being handled today by farmer cooperatives. The co-op market place is especially important for sugar products, dairy products, and rice. Over one-half the dollars farmers received for these products in 1964-65 came from cooperative marketings.

In the decade ended in 1964-65, the co-op's share of farmers' cash receipts increased for nine commodities, declined only for livestock marketings. Notable gains occurred in shares of receipts from sugar products, nuts, rice, and cotton and cotton products.



# FARM MONEY: WHERE IT COMES FROM

Money: Farming requires a lot of it, and farmers must often borrow it to meet their requirements.

At any given time, the farm sector has a large volume of money outstanding to its creditors. On January 1, 1967, for example, total farm debt was \$45.7 billion. By comparison, the physical and financial assets of U.S. farmers were valued at \$269.5 billion on the same date.

The seemingly large size of farm debt, attributed by some to reckless financing, mainly reflects the fact that farmers borrow to increase their size of operation. For example, operators of large farms hold the great bulk of farm debt.

The borrowing that farmers do and the interest charges they pay are the basis for a complex money-lending "industry."

The men and institutions who retail money to farmers must themselves turn to others for funds.

Most farm credit is extended through private channels by firms, cooperatives, or persons. These include banks and savings associations, insurance companies, production credit associations, merchants and dealers, and individuals.

Banks and savings institutions obtain their funds through customers and investors, while insurance companies employ the premiums paid by policy holders.

The sellers of farm supplies who offer credit are backed by manufacturers or finance companies who operate payment plans. Individuals who sell real estate by the land contract method frequently loan the buyer a large part of the selling price.

The Farmers Home Administration lends funds that have been appropriated for its use, or insures loans held by private lenders such as banks.

The Federal land banks and the Federal intermediate credit banks, agencies of the Farm Credit System, obtain funds by selling securities to private investors. The land banks make money available to the cooperative local land bank associations for real estate loans. The intermediate banks assist the cooperative production credit associations in making loans for non-real-estate purposes.

## AGRI-INPUTS

As necessary to farming as soil and water are the purchased inputs: money, materials, and machinery that make farming possible.

This article, first in a series, looks at the lending business, one of the biggest of the industries which supply agriculture.

These industries are important to you, for changes in their structure ultimately affect the products you use. Also, you'll probably be buying more of these goods and services in the future. While cutting down on the labor you need for individual jobs, "storebought" inputs make better yields and bigger operations possible.

Lenders can be divided according to the type of loan risk they accept. Merchants and dealers, for example, often accept higher risks than institutional lenders.

Interestingly, the various types of lenders have maintained their relative shares of the loan market in the past two decades, as the volume of farm debt has more than quadrupled. They have demonstrated flexibility in meeting the changing needs of agriculture.

The next two decades should prove equally challenging. One source has estimated that the volume of farm debt could double by 1980 to \$100 billion. Many trends in farming point to this increased demand:

—The trend to bigger, more efficient and more costly farm units is likely to continue, requiring a growing volume of credit and increasing the amount of the average loan.

—In response to higher prices paid by farmers and the use of larger amounts of purchased inputs, the supply of money available for all types of non-real-estate loans is expected to increase.

—Seller financing (land contract) will continue to be significant. This method of purchasing farm real estate has already found favor with 40 percent of today's sellers.

Philip Allen

*Economic Research Service*



# **SAM STAT SAYS**

## **"Check My Data"**

### **A brief roundup**

■ The number of hogs and pigs on farms in 10 States September 1 was down 1 percent from a year earlier but up 9 percent from 2 years ago.

■ The June-August pig crop was 1 percent below last year. Also, sows bred for farrowing in September-November totaled 1 percent less than last year.

■ Breeding intentions call for 2 percent fewer sows to farrow in the December 1967-February 1968 quarter than in the year-earlier period.

■ The cotton crop on September 1 was estimated at about 8.2 million bales. This would be about 1.4 million bales below last year and the least since 1921. The smaller crop is due to greater diversion of allotments under the 1967 cotton program, one of the worst planting seasons of record, poor growing weather, and heavy insect damage. The cotton carryover on August 1 was nearly 4½ million bales below a year earlier.

## **Farm Lending, Repayments Drop in 1967's First Half**

Farmers borrowed about 29 percent less money from the three major farm mortgage lenders in the first half of 1967 than they did in the same 1966 period.

The reporting lenders were 19 life insurance companies (representing 95 percent of all farm mortgage loans held by such companies), the Federal land banks and

the Farmers Home Administration.

New money loaned by life insurance companies decreased 40 percent, by the Federal land banks down 18 percent and by the FHA (for direct farm mortgage and rural housing loans) down 55 percent.

The decrease by life insurance companies and the Federal land banks was due to strong competition for loanable funds. The FHA decrease resulted from FHA's policy of withdrawing from direct farm mortgage lending.

The three lenders re-

ported that the rate of repayment of principal by farmers declined from the 5.1 percent of January-June 1966 to 4 percent in the first half of 1967.

The total amount outstanding to the three reporting lenders as of June 30, 1967 was \$11.3 billion. This was 7 percent higher than for the like period a year earlier.

The average interest rate charged by the life insurance companies was 6.64 percent in the first half of 1967, compared with a rate of 6.02 percent charged during January-June 1966.

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Editor: Ben Blankenship





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